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[P 18, A]

124 582 Hudson's Bay Company post at Reid Island, who obtained much of it from Ageak, an Eskimo of some 70 or more years. Four out of 60 matings in the most recent major mating generation were between first cousins. We are deeply indebted to Mr. Joss and to Ageak for the great care with which they went into this question for us.

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CHAPTER I

MATERIAL RESOURCES

Few people have been called upon to sustain life and perpetuate their race on such meagre resources as the Copper Eskimo. Even if they had been acquainted with agriculture the climate debarred it, just as it debarred the growth of trees except in two or three sheltered valleys along the southern fringe of their territory. It restricted not only the flora but the fauna, leaving the natives dependent for their food and for much of their equipment on one land animal, the seasonally migrating caribou, and two sea mammals, the foetid and the bearded seals, supplemented by such fish as they could capture in rivers, lakes, and bays. Ignorant of all metals except their native copper, which seemed to them only a malleable stone, and cut off from contact with any but neighbouring tribes, little or no more advanced than themselves, they had to build up their lives on the scanty resources provided by their own narrow environment, and rely on their own ingenuity to supply all their needs.

The resources provided by their environment fall naturally into four groups:

Wood
Stone (including native copper and other minerals)
Bone, antler, horn, ivory
Hides and sinew.

WOOD

The Copper Eskimo obtained their wood from two sources. First, there was the driftwood, mainly spruce and cottonwood, carried to the ocean by Mackenzie River far to the westward and borne by the winds and currents to Dolphin and Union Strait and western bays of Victoria Island. Then in the valleys of three rivers that flowed into Coronation Gulf, Coppermine, Napaktauktauk, and Tree, there stood scattered groves of spruce, small and stunted, a few miles from the coast, but larger as one proceeded south. Far to the southeast, too, near Thelon River, were other stands of spruce that the Eskimo from Bathurst Inlet and from the eastern shores of Victoria Island occasionally visited in their wanderings. Thus the Copper Eskimo had abundant wood to satisfy all their needs; but as driftwood was very scarce in many districts, and the standing timber on the southern fringe of their territory could be reached only after a long journey overland, which many natives were disinclined to make, manufactured objects of wood were among the commonest articles of trade and passed freely from one end of the territory to the other. Moreover, so crude were the Eskimo tools, and so great the labour of cutting down the trees and hewing the timber into shape, that any object of moderate size, such as a sled-runner, a table, or even a tent-pole, commanded a high price.[1]

The principal tools used in working wood were the adze and the whittling knife (*See* pp. 100 and 103). Bone or antler wedges, generally made for each occasion and immediately discarded, served to split small logs and planks; they were driven home with boulders. Lacking saws, the Eskimo shortened a plank in one or other of three ways: they hacked it with the adze; gouged it across with the grooving tool (*See* p. 100); or they drilled a line of holes across it with the bow drill.

[1] Cf. Stefansson, V.: The Stefansson-Anderson Arctic Expedition. Anth. Papers, Amer. Mus. of Nat. Hist., vol. XIV, pt. I, pp. [illegible] New York, [illegible].

women's. Figure 20 shows a rather unusual type of dancing cap, made entirely 292
from sealskin. Most were of short-haired caribou fur, decorated with parallel white bands, or with bands in white, red, and black exactly like outer stockings; many lacked even the fur base, the parallel bands forming the entire body of the cap. Here and there were attached clusters of creamy caribou-skin thongs, 292
and to the crown a white weasel skin that trailed down behind (Figure 21). 531
Inset in most caps, too, from one side to the other over the peak, was the head 237
and neck of a loon, so split that the bill projected upward. Figure 22 shows a typical specimen.

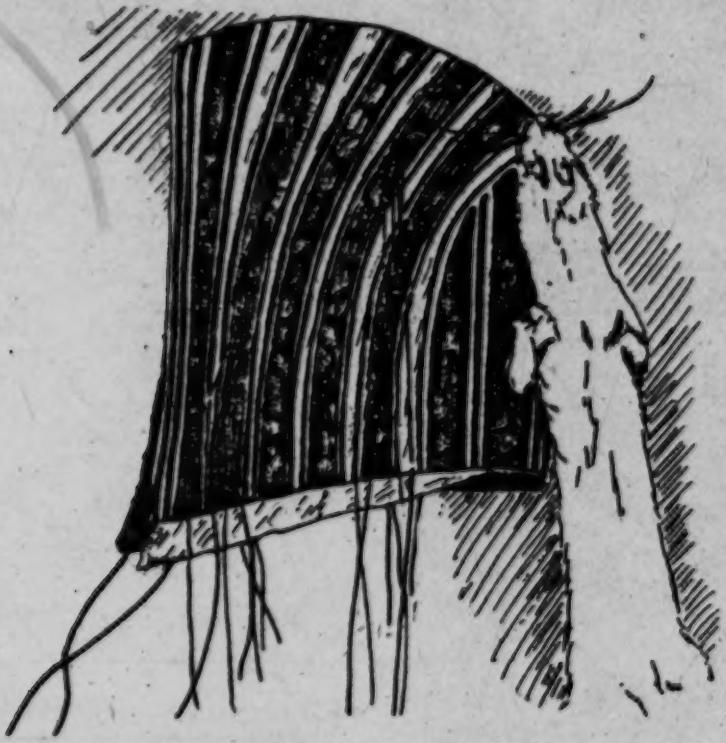

Figure 21. Dancing cap, of caribou fur, with lemming-skin pendant. IV.D.976. Approx. 1/2.

This loon-head ornament probably originated from the use of a complete [171]
loon-skin head-dress, such as was current on the Arctic coast of Alaska down to [175]
the second half of the nineteenth century.[1] I have never seen a specimen, but

[1] Cf. Simpson, John: The Western Eskimo; a selection of papers on Arctic Geography and Ethnology reprinted and presented to the Arctic Expedition of 1875, p. [illegible], London, 1875. [113]

[TEXT CONTINUED ON PAGE 31

CHAPTER III

HOUSEHOLD FURNITURE

FIRE-MAKING

372 The Copper Eskimo were familiar with the method of making fire by means of the thong drill, but rarely practised it because it involved strenuous labour and suitable wood was rare. The handles of some of their whittling [412] knives and other tools had small holes to fit the top of the spindle, for a man pressing down with both hands could exert greater force than was obtainable with the usual drill mouthpiece. Figure 46 shows the hearth of an old fire-making apparatus; the specimen was discovered on the beach at Kater Point, close to Bathurst Inlet.

372 316 The ordinary method of making fire was by striking together two pieces of iron pyrites, for which there were several sources around Coronation Gulf, the two best known being Kugaluk River, which flows down from the Colville Hills in southwest Victoria Island into the sea behind Cape Kendall, and a small river a few miles east of Coppermine River. The pyrites was occasionally covered with sealskin or caribou skin to protect the hand.

372 237 415 The spark was caught in willow catkins contained in a small disk-shaped bag of sealskin closed with a circular lid of the same material (Figure 47). A little blowing soon spread the glow over a large surface so that it could ignite a lamp-stick or a bunch of matted moss roots dipped in [824] blubber. To foment a flame, however, most Eskimo kept a little stock of dry grass, which, like the lamp-wick of eriophorum seed, they carried in small bags made from the lining around the heart of some animal (Figure 48), from the skin on a loon's foot (Figure 49), or from caribou or marmot fur.

Figure 46. Wooden hearth of fire drill. IV.D.219. 2/3.

LAMPS

354 Many writers have stressed the fundamental importance of the Eskimo blubber lamp, without which the natives could not have survived along the northern coast-line. [178] Although in certain regions they have now adopted substitutes such as stearin candles, coal-oil lamps, wood stoves, and primus stoves, throughout large parts of the Arctic the blubber lamp still holds its own.

Porsild[1] states that "In Arctic regions proper, train-oil is the only fuel, and there the lamps are large; where other fuel [372] —heather, wood, peat or coal—is available, either the whole year round or only in the summer, the lamp used for burning blubber oil loses its importance as a heater, and is used

[113] [1] Porsild, Morton P.: The Material Culture of the Eskimo in West Greenland; Meddelelser om Grønland, vol. LI, p. 2[illegible].

Hough again, in his well-known memoir,[1] distinguishes three kinds of Eskimo lamps on the basis of their use, viz. the house lamp, the travelling or summer lamp, and the mortuary lamp, the latter frequently being models.

Figure 68. Bag for dry grass, made from the lining around an animal's heart. IV.D.222. 1/1.

Neither of these statements is quite correct when applied to the Copper Eskimo. They had lamps of every size, from 2 or 3 inches long up to 60 inches; and small vessels 8 or 12 inches long were as common as lamps of 30 inches. From June to September or October, when most of the snow had melted from the land and the families were scattered in search of fish and caribou, the natives generally cached their lamps with the sleds on the seashore or on the margins of lakes, and used for fuel dwarf willow, heather, *Dryas integrifolia*, and other plants, instead of blubber. Consequently, they had no special summer lamp. But because their ordinary lamp seldom functioned during the summer months we cannot say with Porsild that it had lost its importance as a heater. It still remained the indispensable prerequisite of existence during two-thirds of the year for heat as well as for light.

[1] Hough, Walter Ann. Rept. Smith. Inst., U.S. Nat. Mus., 1919, p. 988.

I know of only one source for this material that is used at the present time by the Copper Eskimo, Port Epworth at the mouth of Tree River in Coronation Gulf where the talc chlorite schist occurs as an inclusion in the granite. It is very coarse in texture, and of a pale grey colour, as can be seen in unused specimens or by fracturing an old one.

Nevertheless, there seem once to have been other sources. An old woman who lived at the east end of Coronation Gulf told me that long ago her people used to make lamps and pots from stone obtained in a quarry on Rae River. An early explorer, John Rae, did find soapstone at the fall 10 miles from the mouth of this river,[1] but only in thin beds, which might explain why the Eskimo ceased to use this source. Then again, I purchased from a Coronation Gulf native a little toy lamp of typical Copper Eskimo shape (Figure 50), which was certainly not made from the Port Epworth soapstone, for it is much finer in texture and of a pale green colour. In the same region I obtained also an unfinished implement, resembling an imitation lance-head, which was made from a very similar soapstone, but is yellowish green. Finally, from the west coast of Hudson Bay, probably from Chesterfield Inlet, the museum has a toy lamp (IV.C.165) that resembles in colour, texture, and graining the green toy lamp bought in Coronation Gulf; in shape and dimensions the two are practically identical except that the Hudson Bay specimen has no shelf. Morley E. Wilson, of the Geological Survey, Canada, expressed the opinion that these lamps almost certainly came from the same quarry, because this type of soapstone is exceedingly rare in Canada, and that the implement like a lance-head was also derived from the same locality. It is worth noting that there are deposits of soapstone near the mouth of Back River.

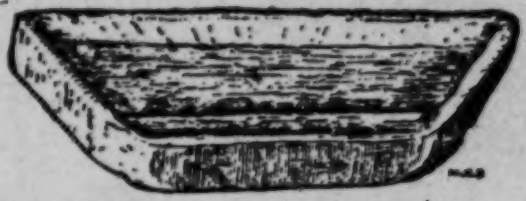

Figure 50. Toy lamp, of pale green soapstone. IV.D.612. 1/1.

Up to a few years ago natives from Dolphin and Union Strait in the west to Amundsen Gulf in the east often migrated to the Port Epworth quarry in the spring of the year in order to manufacture their own lamps and pots. Each family usually made more vessels than it required for its own use in order to have some for barter when it returned home the following autumn or winter.

Women and children often fashioned the smaller lamps and pots. The larger ones were the work of the men, although once they were finished and handed over to the housewife they became her exclusive property. No special skill was required; children 10 years of age could make small lamps just as good as those made by their elders. A little more care was necessary in working at a pot, because the rock, though soft, was somewhat brittle, and the walls and bottom had to be comparatively thin; but even this was not beyond the ability of a child, as it required patience rather than technical skill. With his crude copper tools a native could quarry out his block and make the largest lamp that was ever used in about 3 days, and the largest pot in no more than a day longer; iron tools, of course, appreciably lessened the time. First, he chiselled

[1] Richardson, Sir John: Journal of a Boat Voyage through Rupert's Land, vol. I, p. 333. London, 1851

354 435 437 439 No other Eskimo group seems to have used lamps of this type unless derived by them in trade from the Copper Eskimo, for their convenient shape and large size caused them to command an extensive market. Not only were they bartered from group to group throughout the Coronation Gulf area, but they were traded along the coast to the Netchilik Eskimo of King William Island, and westward beyond the natives of Mackenzie delta to Barrow.[1]

435 354 322 237 356 Their value naturally increased according to their distance from the source of supply. Thus, on the west coast of Victoria Island, when the small 12-inch lamp (Figure 55) fell and shattered its back rim, its owner, or more probably her husband, did not discard it, as she would probably have done in Coronation Gulf, but made an entirely new back piece of wood, which she lashed through three holes with cords of sealskin or plaited sinew.[2] The larger lamps, of course, were mended everywhere, sometimes with another piece of soapstone, more usually with wood, which was cemented with seal blood and secured with lashings.

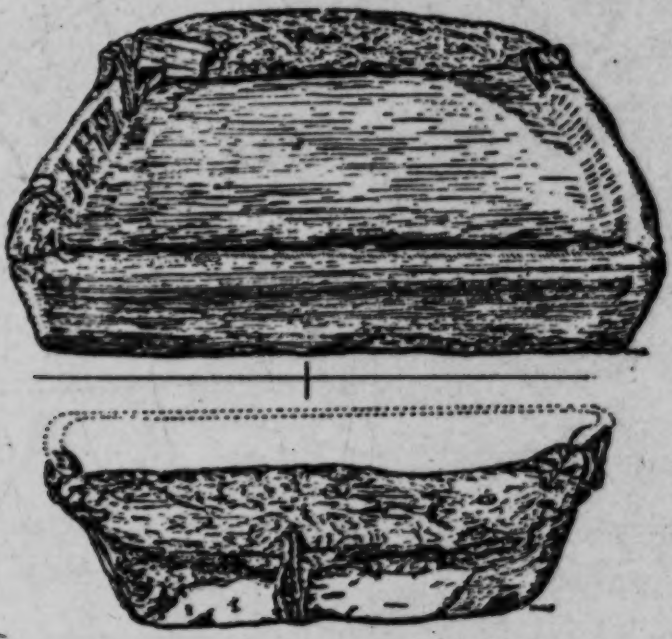

Figure 55. Lamp repaired with wood. IV.D.1208. Approx. 1/3.

354 The National Museum of Canada possesses two very shallow ellipsoidal lamps, obtained in Prince Albert Sound, that have no partitions, are rounded on the bottoms, inside and outside, and must be tilted forward to permit the oil to flow to the wick. One (Figure 56), 15½ inches long by 8½ inches wide, has been

[113]

[1] Cf. Simpson, Adam: The Western Eskimo; Arctic Papers for the Expedition of 1875, London, 1875, p. 337.
[2] The specimen is too heavily encrusted with blubber to determine the exact material of the lashings.

354 352 two or three stones supported the lamp; and on short winter journeys, when the lamp served only for light, it was simply placed on a block of snow. As already stated, it was seldom employed during the summer months.

354 824 [137] [237] [415] Unlike nearly all Eskimo tribes the Copper Eskimo seldom or never used moss for the lamp-wick, but substituted the seeds of the cottongrass, *Eriophorum angustifolium*, or, more rarely, the catkins of the dwarf willow, either of which gave a more smokeless flame. *Eriophorum angustifolium* matures about the beginning of September, and it was at that season the women gathered the seeds into small bags made of loon skin, marmot skin, or other convenient material. They gathered a large supply, as in midwinter the wick needed daily renewing; and they deferred the separation of the seeds from the stalks until leisure moments in camp.

354 372 237 462 [171] [824] *Lighting and Tending the Lamp.* The Copper Eskimo lighted and tended their lamps in the same way as the Eskimo of Smith Sound[1] except that they did not chew the blubber and spit it into the lamp. The housewife took out of a sealskin poke two or three strips of blubber a foot or more long by several inches wide, and with a specially designed hammer of musk-ox horn (*See* Figure 63) pounded them on the table to break up the cells.[2] She then laid them in the well of the lamp, when a little oil began at once to accumulate on the bottom, unless the weather was extremely cold. In this oil she soaked her eriophorum seeds, and arranged them along the lip of the lamp in a continuous line so that their lower edges touched the bottom of the well (or at least dipped into the oil that shortly accumulated), and the upper edges projected about a quarter of an inch above the rim. To light the wick she pinched it up into little points 2 or 3 inches apart, which readily caught fire from the torch; and by patting up adjacent parts of the wick with her lamp-trimmer she quickly produced a continuous smokeless flame rising to a height of about three-quarters of an inch. As the heat melted the oil out of the strips of blubber, she removed them to the back shelf of the lamp until they drained; then, later, she threw them to the dogs. Sometimes, if the lamp already contained a certain quantity of oil, she placed fresh strips of pounded blubber on the same shelf instead of in the well, so that the oil would not accumulate too rapidly and drip over the outer edges of the lamp. The Copper Eskimo had no device for melting the blubber on a stick or shelf, such as was common in both the eastern and western Arctic.

354 462 Hough[3] says that lamp-trimming "only reached perfection in the old women of the tribe, who can prepare a lamp so that it will give a good, steady flame for several hours, while usually half an hour is the best that can be expected." This is not true of the Copper Eskimo. There, the women naturally have more experience than the men, and on the average are more skilful, but many a hunter can tend the wick just as successfully as his wife. A lamp is seldom allowed to smoke; one of the inmates, be it the man, his wife, or even one of the children, is sure to notice it and pat down the wick.

354 415 [191] The same writer states in another passage[4] that "the lamp and the pot usually agree as to size, the rule being that the length of the pot shall be equal to the length of the wick edge." Among the Copper Eskimo, as in Smith Sound and, I believe, elsewhere, the sizes of the two vessels bear no direct relation to one another. For obvious reasons the wick edge of the lamp should be no shorter than the bottom of the pot; but it may be, and often is, much longer, for with her lamp-trimmer the housewife can readily adjust the flame to whatever length she desires.

[113] [1] Cf. Stromby, H. P.: Contributions to the Ethnology and Anthropology of the Polar Eskimos: Meddelelser om Grønland, vol. XXXIV, p. [illegible].
[2] Polar bear fat was occasionally used instead of seal blubber, and probably fat of any kind in emergencies.
[3] Hough: op. cit., p. [illegible].
[4] Hough: op. cit., p. [illegible].

The lamp-trimmer mentioned several times above was in most cases merely a pencil of wood varying in length from 6 to 18 inches, generally flattened at one end and smoothed. Any small stick, whether of wood, bone, or antler, sufficed in an emergency; I have even seen a man use his knife. The stone (soapstone or asbestos) pencils, often employed in West Greenland and in Hudson Bay,[1] seem to have been unknown to the Copper Eskimo. Unknown, too, were the drip-stands of Alaska, Greenland, and other places. The Coronation Gulf soapstone is not porous as the Greenland soapstone is said to be[2]; and though oil might frequently drip over the edges, it never seeped through the vessel itself. 354 412 [135]

Every household employed torches for lighting extra lamps, for searching the corners of the hut, and particularly for conveying fire from one snow-hut to another. Occasionally a woman used the lamp-stick or even raw lamp-wick, but she always kept for the purpose four or five bunches of matted moss roots that she had collected and dried in the late summer (Figure 47*b*). Such a torch, dipped in the melted blubber, would burn several minutes, though if carried outside in windy weather it had to be shielded inside a bag or bucket. It was a common sight after a day's march to see the women carrying torches from one hut to another in order to relight their lamps; the first lamp, of course, was lighted with pyrites. 416 [824]

In summer, when the lamp was discarded, the Eskimo carefully extinguished their open-air fires with flat stones in order to reduce the burning wood to charcoal, which readily took a spark on some future occasion and could be kindled into a flame with the breath. In blowing the fire they did not purse their lips as we do, but curled the tongue along the lower palate into a half-cylinder that directed the breath along a narrow path. When carrying glowing coals from one tent or cooking place to another the women usually wrapped them in bunches of dry heather or *Dryas integrifolia;* where no coals were available they used the heather or dryas alone. 372 [824] [137]

POTS

The Back River Eskimo commonly made their cooking pot from five flat slabs of limestone cemented together.[3] Among the Copper Eskimo we saw none of this type, only pots carved from solid slabs of soapstone. Theoretically these pots should have received two forms, one adapted for cooking over the blubber lamp in winter and the other for use over an open fire during the summer months. The pot for use with the blubber lamp should have been a long, oblong vessel, rather narrow, because the flame of the lamp was a long, narrow line; it should have been comparatively deep to hold large pieces of seal and caribou meat; and it might have had considerable dimensions and weight, as it was always carried on the sled during the winter and spring months. The pot for use over an open fire in summer should have been less narrow, and altogether smaller and lighter, because at that season all the household furniture had to be carried on the back. 415 [171] [324] [252] [493] [482]

In actual fact both types existed among the Copper Eskimo, but the longer, narrower form adapted for use over the blubber lamp was far more generally used, as winter conditions prevailed during 8 months of the year. The pot was nearly always rectangular in outline, though one saw occasional specimens of trapezoid form. The corners were sharp, almost at right angles, the sides slightly convex in outline and sloping inward towards the bottom, making the vessel widest and longest at the top; the convexity in the sides was occasionally marked. In large pots there was a tendency for the depth to vary inversely with the breadth, so that the narrower vessels were likewise the deepest. 113

[1] Forsild, M.: Op. cit., p. [illegible]. Thalbitzer, W.: The Ammassalik Eskimo; Meddelelser om Grønland, vol. XXXIX, p. [illegible] (Copenhagen, [illegible]).
[2] Birket-Smith, K.: Ethnography of Egedesminde District; Meddelelser om Grønland, vol. LXVI, p. [illegible] (Copenhagen, [illegible]).
[3] Chief Factor James Anderson's Back River Journal of [illegible]; Can. Field-Nat., vol. LV, 2, [illegible], p. [illegible].

interesting, because it has been broken across in two places and repaired with six copper bands. Moreover, unlike all the other pots from this region in the possession of the museum, it is made from a biotite chlorite schist. Yet in shape it is almost a duplicate of No. IV.D.676 (Figure 89), the sides in both pots being unusually convex. The latter vessel came from Coppermine River, and is of the usual soapstone (talc chlorite schist) from the quarry near Tree River.

Figure 88. Typical soapstone pot. IV.D.676. Approx. 1/2.

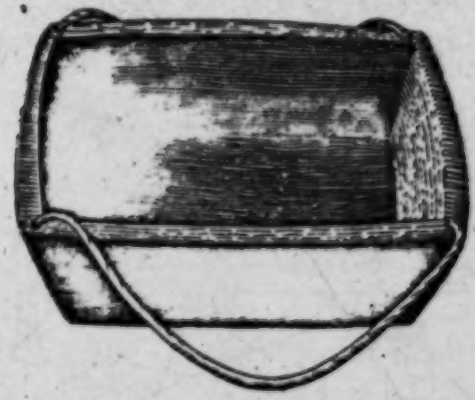

Figure 89. Squarish soapstone pot, now in Royal Ontario Museum, Toronto.

From an artistic point of view it would seem that the pots of the Copper Eskimo have degenerated during the last 150 years, for Hearne gives a slightly different description of the vessels he saw in the Eskimo encampment at Bloody Fall, near the mouth of Coppermine River. "Some of those kettles are so large as to be capable of containing five or six gallons; and though it is impossible these poor people can perform this arduous work with any other tools than harder stones, yet they are by far superior to any that I had ever seen in Hudson's Bay; every one of them being ornamented with neat mouldings round the rim, and some of the large ones with a kind of flute-work at each corner. In shape they were a long square, something wider at the top than bottom, like a knife-tray, and strong handles of the solid stone were left at each end to lift them up."[1]

[1] Hearne's Journey from Prince of Wales's Fort in Hudson's Bay to the Northern Ocean, edited by J. B. Tyrrell. The Champlain Society, Toronto, 1911, p. 105.

The flute-work in the corners and the strong handles of solid stone both disappeared, though the latter survived among the Caribou Eskimo.[1] In order perhaps to replace the handles, the neat ridges were lowered down the faces of the short ends, and they were dropped entirely from the longer sides. With regard to the flute-work in each corner one may perhaps conjecture that it was a rounded projection pierced with a suspension hole, as in the pots of West Greenland,[2] to avoid drilling through the actual wall. So far as I know no specimen exists of the type of pot seen by Hearne.

TABLE

The table, having no legs, was practicable only in a snow-hut where one end could be supported by the snow wall.[3] As soon as the snow melted, therefore, it was cached with the lamp at some convenient spot on land and abandoned until the early winter. In shape, it was roughly rectangular, with one end often a little wider than the other; and in size, it ranged from 3½ to 4½ feet long by 10 to 15 inches wide. An average specimen is shown in Figure 61.

Figure 61. Table. IV.D.698. Approx. 1/12.

DRYING FRAME

The Copper Eskimo generally bestowed very little care on the making and handling of their drying frames, which, in consequence, were frequently broken and bent out of shape. Properly made specimens were never round, but roughly oval, the curve being flattened on the long side that fronted the sleeping platform. Occasionally the two ends of the wooden hoop were merely lashed together; more often they were pegged with bone or copper pins. The frame was further strengthened by cross bars of sticks that passed at intervals of a few inches from one long side to the other and were lashed to the under edge of the frame exactly as the cross bars of a sled were lashed to the runners. Newly made specimens, especially if large, had webbings of rawhide, but when the rawhide dried out and broke the owners often mended it with sinew. The thongs passed through holes (often sunken) in the frame, forming a warp and a weft that interlaced in what is known as cross-weft pattern, and gave square meshes from 2 to 4 inches across. A typical drying frame is shown in Figure 62. Simpson reported frames made of baleen on the south coast of Victoria Island near Wellington Bay,[4] but all that I observed were made of wood.

[1] Rasmussen, K.: The Caribou Eskimos, pt. I, p. 18; Report of the Fifth Thule Expedition 1921-24, vol. V, Copenhagen, 1930.

[2] Thalbitzer, W.: Implements and Artefacts of the North-East Greenlanders; Meddelelser om Grønland, vol. XLIV, p. 403.

[3] For the method of supporting the table, lamp, cooking pot, and drying frame see Reports of the Canadian Arctic Expedition, vol. XII, pt. A, p. 61.

[4] Simpson, Thomas: Narrative of the Discoveries on the North Coast of America, London, 1843, p. 384.

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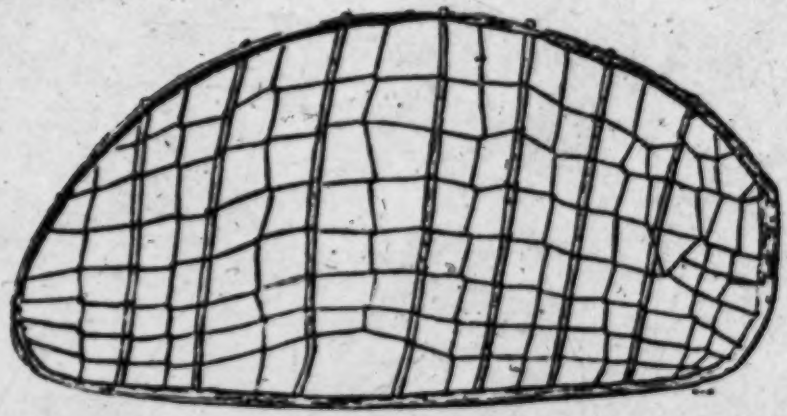

Figure 62. Drying frame. IV.D.647. Approx. 1/14.

BLUBBER POUNDERS

Although a stone or any convenient implement might be used in an emergency to pound the blubber for the lamp, every household possessed at least one, and often two or three implements especially made for this purpose. It was invariably of musk-ox horn, curved evenly almost to a semicircle. The handle was flattened on the sides, and had three or, more usually, four grooves on the under surface to fit the fingers; rarely it ended in a small knob. In size it varied from children's toys 2 or 3 inches long to specimens of 11 inches; the average household size was around 8 inches (Figure 63). Ornamentation was rare, but one specimen in the possession of the Museum (IV. D 1611) has etched into its surface the ring-and-dot design and three parallel lines.

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These Copper Eskimo blubber pounders of musk-ox horn differ slightly from the Netchilik specimen figured by Boas.[1] The latter have for the first finger a deep notch that seems to form almost a right angle, sharply dividing the hammer end from the handle. All the Copper Eskimo specimens that I have seen bear rounded grooves only, so that their form is much more graceful. Blubber pounders were used in west and northwest Greenland,[2] and probably also both in Mackenzie delta and in Alaska. The typical West

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Figure 63. Blubber pounders, of musk-ox horn, the smallest a toy only. IV.D.156, 435, 1692. Approx. 3/8.

[1] Boas, F.: Eskimo of Baffin Island and Hudson Bay; Anth. Papers, Am. Mus. Nat. Hist., vol. XV, 1907, p. [illegible].
[2] Thalbitzer, William: Niederschrift von Grönland, vol. [illegible], p. [illegible].

321 Greenland implement seems to have been made of antler, the heavy base at right
412 angles to the prong forming the hammer head.[1] For Mackenzie delta and Alaska
our information is less certain, but some bone-headed mallets figured by
372 Murdoch,[2] were probably used for pounding blubber; they are mounted on
171 wooden handles like the ordinary stone-headed mallet from this region. The
Museum possesses a stone mallet (IX.F.323), unmounted, from Barrow that
was said to have been used for pounding blubber.

321 The blubber pounder made of musk-ox horn is evidently a special product
of the central regions, where alone, except for the uninhabited northern archi-
412 pelago and North Greenland, the musk-ox has persisted down to the present
372 day. The convenient shape and weight of the natural horn doubtless suggested
174 its use for this purpose; and the grooving of the handle for the fingers was
[171] already practised with certain other tools, such as the marline-spike for the
back-lashings of the bow.

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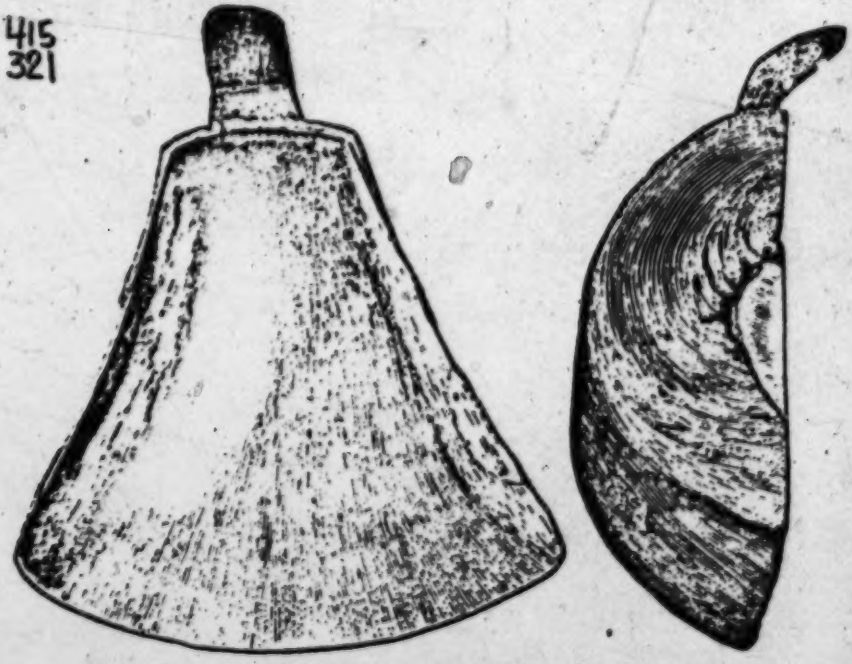

Figure 64. Drinking ladle, of musk-ox horn. IV.D.1489. Approx. 1/2.

LADLES AND DRINKING HORNS

Drinking ladles of musk-ox horn were indispensable to every household, but never carried by hunters in the field. Their usual shape is illustrated in Figure 64. In size they varied from children's toys 4 or 5 cm. long (often made of

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[1] Birket-Smith, Kal.: Ethnography of the Egedesminde District; Medd. om. Grøn., vol. LXVI, fig. 14.
[2] Murdoch, John: Ninth Annual Report of the Bureau of American Ethnology; Smith. Inst., pp. [illegible]

The method of using the whittling knife in Coronation Gulf and westward differed from the Greenland method described by Porsild.[1] The Copper Eskimo held the knife low down with the hand directed inward, and the handle resting along the inner side of the forearm so that it fitted into the curve of the elbow. With the instrument thus pivoted on the elbow the forearm moved as one unit and the wrist remained perfectly still. Smaller whittling knives, even though their handles did not reach the elbow, were held in the same manner.

Grooving Tool. The Copper Eskimo had a tool for cutting grooves in bone, antler, and horn similar in shape to the tool used by other Eskimo tribes. The blade, which was nicked at the end or else bore a sharp, pointed projection, was mounted in an antler handle of no particular shape. Sometimes the handle was split for the insertion of the blade, sometimes the blade was simply driven in with a stone, and riveted or not according to the owner's fancy. Figure 115 shows three specimens of the tool, all from Coronation Gulf; but Figure 115c is really a combination tool, because its handle served also as an arrow straightener. All three specimens have iron blades, as indeed did every grooving tool I saw in the country. Whether copper or stone preceded iron in this case I did not discover.

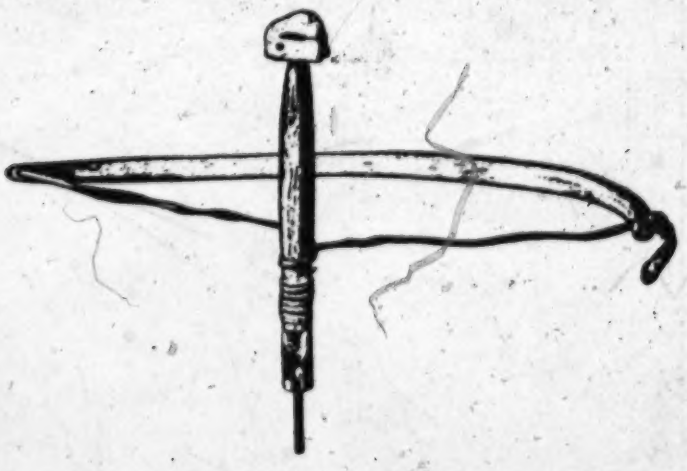

Figure 116. Drilling set. IV.D.706. 1/3.

Drilling Sets. The Copper Eskimo used the three-piece drilling set found among other Eskimo tribes (Figure 116). The bow was of bone, generally the rib of a musk-ox or caribou; a hole was drilled in each end for the attachment of the sealskin cord. The stem or spindle was nearly always of wood, though bone was used occasionally and ivory when it was procurable. To prevent the wood from splitting, a bead of bone, antler, or musk-ox horn was added to it, either as a cap or by splicing. All the drills I saw had points of iron, which had long been current in very small quantities; copper perhaps was used earlier, and stone, although the natives seemed to have no recollection of the stone drill points.

[1] Porsild, M. P.: Studies on the Material Culture of the Eskimo in West Greenland; Meddelelser om Grønland, vol. LI, p. 105.

hardly distinguishable from the antler knife used by the women for chopping snow; but a curving prong in which the point formed nearly an acute angle with the handle made a more efficient tool (Figure 122). 412 321

Figure 122. Curved pick of antler. IV.D.1634. 1/4.

Mattocks were seldom required except for two purposes, to secure, in the autumn, mud for plastering the runners of the sleds, and to make shallow pits where the hunter could await unseen the approaching caribou. Some families had no mattocks, but no hunter's equipment was quite complete unless he carried a short straight one in his bow-case. In fact, the usual name for a mattock was *tallulit*, i.e., a tool for making a *tallu* or hunting pit. 412 224 [493]

Snow Sounder. The main purpose of the snow sounder was to test the depth and compactness of snow with a view to the construction of a snow-hut. Hunters used it occasionally to probe the breathing holes of seals. 412 [342]

The implement was a straight, slender rod of antler[1] roughly 3 feet long, usually shod at the bottom with a peg of bone or musk-ox horn. The handle, of bone or musk-ox horn also, nearly always took the form of a round button drilled to fit the top of the rod (Figure 123). Figure 124, however, shows a specimen with a more elaborate handle. [321]

FISHING EQUIPMENT

Copper Eskimo methods of fishing have been described in Reports of the Canadian Arctic Expedition, 1913-18, vol. XII, pages 152-157. 226 113

Rods, Hooks, and Lines. There were two types of fishing rods. The first was a short stick from a foot to 18 inches long, curved at one end to form a handle, and notched at both ends to wind up the line. The Eskimo often had some difficulty in securing suitable wood for this kind of rod, wood that would bend without cracking. Hence, they frequently spliced two pieces of wood together, or a stick of wood to a handle of antler; or they even made the rod entirely of antler. With dry wood, too, the notches were very liable to break, 227 322

[1] Stefansson obtained a very unusual rod of solid copper (Anthrop. Papers, Am. Mus. Nat. Hist., vol. XIV, fig. 4, p. 30 (New York, 1918)). [113]

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Because many natives experienced difficulty in obtaining a piece of wood large enough to carve into a bowl, they often substituted a curved piece of bone or of musk-ox horn, lashed to a wooden handle. Specimens of these more or less makeshift scoops are illustrated in Figure 138, where *a* (IV.D.135) has a bowl of musk-ox horn, and *b* (IV.D.179) of bone. The handles of such scoops could be lengthened, if necessary, by lashing to the walking-stick or fish spear, for which purpose their owners often cut notches at the ends.

SEALING EQUIPMENT

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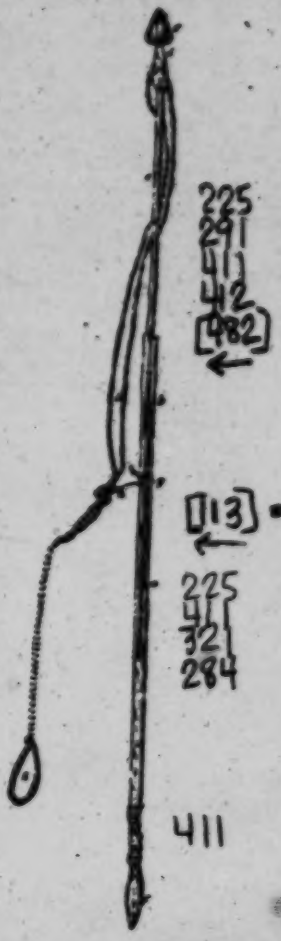
In the spring and autumn, when the seals were basking on the surface of the ice, Copper Eskimo hunters occasionally tried to crawl near enough to transfix them with their harpoons; but so slight were their chances of getting within range—unless perhaps in rough ice where there were sheltering hummocks—that most men never attempted the feat until they obtained rifles, which extended the effective distance for attack from 8 or 10 yards to 100 yards. Every man, on the other hand, and even some of the younger women, regularly tracked down the seals' breathing holes in the ice during the winter months and harpooned the animals when they rose to the surface. In midwinter, when the days were short, they started out for their hunting grounds half an hour before dawn, and did not return home until after dark. Their outfit was fairly standardized, though not always complete. Each man wore a long outer coat of thick caribou fur to protect his body from the cold. Sewn to the back of this coat was a bone button (*See* Figure 37) for the attachment of various tools, viz., a scoop to clear away the snow, bone skewers for closing the wounds in the seals, a toggle to drag them home, a spare harpoon head, and sometimes a foot-pad to protect the hunter's feet as he waited motionless, 1, 2, or even 3 hours, over the breathing hole. In his hand he carried his harpoon, the usual long, two-edged knife, and an "indicator" to warn him when a seal was rising to breathe; and from one wrist hung a special toggle that he attached to the trace of his dog. His method of hunting is described in "Life of the Copper Eskimos", Reports of the Canadian Arctic Expedition, vol. XII, pt. A, pages 112-114; here we need consider only the details of his tools and weapons.



Harpoons. The harpoon was roughly the height of a man, or from 5 feet 6 inches to 6 feet long; and it varied only in minor details (Figure 139). It contained essentially four parts—a shaft, usually of wood, but occasionally of two or more pieces of antler riveted and lashed together; a bone or antler (very rarely, copper) foreshaft that fitted into a hollow bone cap at the end of the shaft; a detachable head with a long hand line of plaited sinew;

Figure 139. Sealing harpoon. *a*: wooden shaft; *b*: bone socket-piece riveted to the shaft with copper nails; *c*: antler foreshaft; *d*: antler head; *e*: copper blade; *f*: antler butt; *g, h*: sinew from hand line tucked under the thong that runs along the shaft, the thong itself being held down at this point with a copper staple; *i*: hand line of braided sinew; *k*: grip of hand line. IV.D.684. 1/10.

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secured to the wood by a complicated series of half hitches, well illustrated by Murdoch.[1] As these back lashings slackened with frequent tension and changing weather conditions, the owner wedged little plaques of wood, skin, or bone

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Figure 133. Braces to strengthen the joints of a bow. a: musk-ox horn; b: bone. IV.D.706, 692. 1/1.

beneath them (Figure 154), and when plaques no longer sufficed, he removed the lashings altogether and rewound them, an operation that he could perform in about an hour. Defects in the horns were more serious, but not insuperable. I have seen a native strip a bow down to the bare wood, fit it with two new horns, and relash the weapon ready for use in the space of 4 hours.

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Figure 154. Plaque of rawhide, wedged under the back lashings of the bow. IV.D.79. 1/1.

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The bowstring was made from five or six strands of sinew, twisted together. When stringing his weapon, the hunter sat on the ground and pushed the middle of the bow from him with his foot while pulling the horn towards him.

When the party of Indians with whom Hearne travelled in 1771 massacred some Copper Eskimo at Bloody Fall, near the mouth of Coppermine River, Hearne noticed that most of the Eskimo arrow heads bore triangular points of a slate-like stone, whereas the remainder had points of copper.[2] The Copper Eskimo we encountered were using only points of antler, bone, copper, or iron.

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[1] Murdoch, John: A Study of Eskimo Bows in the U.S. National Museum; Report of the U.S. Nat. Mus., 1894, figs. 6-16.

[2] Hearne: op. cit., p. 180.

scarfed and spliced together with three copper rivets (Figure 156). Both were deeply encrusted with lichens, and were evidently of considerable antiquity. Probably they were made by ancestors of the present-day Copper Eskimo. On the other hand, it is not at all impossible that they are arrow heads of the earlier "Thule"-culture inhabitants who have left other remains in the region. The use of copper rivets does not rule out this possibility, because copper-bladed women's knives with typical "Thule" handles have been recovered from an old stone house on Victoria Island and from a stone grave on the neighbouring Read Island, along with harpoon heads and other objects of typical Thule (North Alaskan) types. There are good grounds for believing, therefore, that the ancient Thule population itself used the local deposits of copper and passed on its knowledge to the ancestors of the present-day Copper Eskimo when the latter migrated into the area.[1]

In 1914 arrows with long antler points that fitted directly into the wooden shafts were fairly common; some had no barbs, others one or more along one side. Much more common, however, were arrows with separate blades of bone, copper, or iron that riveted into antler foreshafts, or were provided with long shanks that took the place of foreshafts. Points of bone were rare; about 65 per cent were of copper and the remainder of iron, hammered into the same shapes as the copper ones. These shapes, and also the methods of splicing the wooden shafts when made of two or more pieces, have been rather fully illustrated by Stefansson.[2] Individuals may have preferred one type of point to another for certain game, but so far as I could discover they used all types more or less indiscriminately.

The Copper Eskimo used the Mediterranean release, holding the bow almost horizontal. They generally feathered their arrows with goose, loon, eider duck, or snowy owl quills, but did not disdain quills from other birds. Normally, two feathers only were used on each arrow, but occasionally three, for no special reason that I could discover. The hunter cut off on his trimming board all the barbs along one side of the feather, smoothed the rough quill with his knife, grooved the arrow shaft with the special tool for that purpose (or, if he lacked this tool, split it slightly with his knife), and lashed the two ends of the feather in the grooves with caribou sinew. This was the usual way of feathering. Occasionally, however, he merely trimmed the barbs a little on both sides and fastened the feather flat against the shaft. There was also a third method, in which two half feathers, i.e., feathers from which the barbs on one side had been removed, were lashed around the end of the shaft spirally, end to end, and the barbs spread fanwise. I saw a man feather an arrow for his young stepson in this way and was told that it was a rare method, never employed on arrows intended for serious use.

Bow-case, Quiver, and Tool Bag

The bow-case (Figure 157), which was made of sealskin to keep out water, was shaped to the form of the weapon; one end was closed, the other left open for some distance down its curved edge to permit the insertion of the bow. To close the opening when the bow was in place there was a short cord of plaited sinew whose loose end was tucked under the lashing, leaving the tip protruding so that it could be unfastened at a single jerk. A quiver with or without a cap was sewn or buttoned to the straight edge of the case; and a tool bag was also sewn to the case in such a way that the quiver, when carried on the back, lay on top of it and prevented its contents from falling out. Often, too, there was a sheath

[TEXT CONTINUED ON PAGE 128]

[1] Mathiassen found a little copper in the old Thule site at Naujan, on the west coast of Hudson Bay (*Reports of the Fifth Thule Expedition*, vol. IV, pt. 1, pp. 14, 16 (Copenhagen, 1927)); and Graham Hawley discovered a small copper hook in a Dorset culture site near Ivujivik, some 250 miles further north. So far as we know today, this copper could have come only from the Coronation Gulf region.

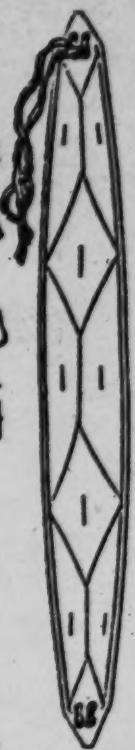
[2] Stefansson, *Anth. Papers, Am. Mus. Nat. Hist.*, vol. XIV, pp. 25-28 (1919).

411 415 28 for the snow knife, which served also as a hunting knife, sewn to either bow-case or quiver. The carrying strap was attached by sewing or with toggles to the same edge of the bow-case as the quiver, so that the two would lie together; in fact, the ends of the strap often served to unite them.

41 Bow-case, quiver, and tool bag, when fully equipped, carried on their surfaces nearly a dozen bone toggles and needles whose forms and uses require some explanation. Other objects might be attached for temporary convenience, but they were not standard equipment.

411 414 [192] When the carrying strap, which passed across the chest and around the upper arms like the regular pack-strap, was not sewn directly to the bow-case, it buttoned to two toggles of the standardized shape, illustrated in Figure 160a. There was also a long, flat handle, *nerumiarvik*, lashed to the straight edge of the bow-case so that it could be carried in the hand. This handle varied in size according to the size and weight of the bow and quiver, its average length being about 8 inches; the shape never varied, however, except that the ends were sometimes pointed instead of rounded. The flat surface lent itself to ornamentation, and most bow-case handles were decorated with a more or less fixed design[1] (Figure 158).

[531] 414 224 A toggle similar to those for the carrying strap was occasionally sewn on the side of the bow-case for the attachment of a short board. I failed to procure any specimen of this board, but Figure 159 reproduces field sketches of two that I saw in actual use. Each was about 16 inches long, but one was made from one solid piece of wood, the other from two smaller boards lashed together. The toggle on the bow-case passed through the slot in the middle. In the hunting field the Eskimo planted two walking-sticks in the ground, fastened these boards to their ends, and stationed two children to twirl them, or to beat them with a stick, so that the frightened caribou would not break away from the line of the drive and escape the concealed hunters.[2] The board had two names, *kivyalun* and *aulaqotit*, "driving instrument".



[192] → Figure 158. Bone handle of bow-case. IV. D. 199. 1/2.

411 414 The quiver was sometimes sewn to the bow-case, sometimes attached by means of small toggles of varying shapes, one type being shown in Figure 160b. A similar toggle on the face of the bow-case buttoned over the handle of the snow knife to keep it from slipping out of its sheath.

[192] Somewhere on the outside of either quiver or bow-case were two small bone "wings", from 2 inches to 3 inches long, of standardized shape, for pinning through the wings of

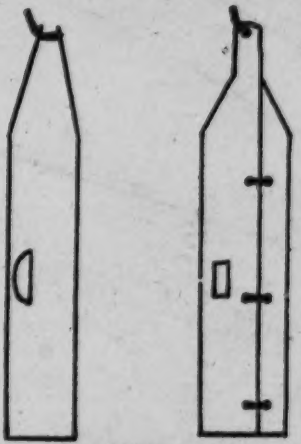


Figure 159. Field sketch of two boards used for frightening caribou. Approx. 1/6.

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[1] The specimen figured in Stefansson, Anthropological Papers, Amer. Mus. Nat. Hist., vol. XIV, pt. 1, p. 30, called a "pail for Cord used in Loading Seals", is a bow-case handle.

[2] See Report of the Canadian Arctic Expedition, vol. XII, pt. A, fig. 49, p. 131.